

# PATENT SPECIFICATION

927,866

DRAWINGS ATTACHED.

927,866



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## COMPLETE SPECIFICATION.

### Improvements in or relating to Boxes and like Containers having a Plastics Lining.

We, MECAPLAST S.A., a Body Corporate, organized under the laws of Switzerland, of 33 Quai Wilson, Geneva, Switzerland, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention relates to boxes or like containers having a plastics inner pocket or lining.

It has already been proposed to provide a relatively rigid support between the pocket and the container.

The invention has for its object to make it possible to use in such a type of container a pocket of a known type having a neck or pouring spout which is retractable, that is, capable of being collapsed or flattened or pushed inside the pocket, for example in the manner of a glove which is turned inside out, this retraction occurring when the outer container is closed.

According to the invention, the pocket comprises an annular recess or neck in which is disposed the edge of an aperture, of corresponding shape, in a relatively rigid support interposed between the pocket and the outer box.

Owing to this support, which can be placed in the mould when producing the plastic pocket or mounted subsequently, the neck extension can be retracted by compression or depression without deforming the part of the pocket containing the liquid and thus without risk of the pocket becoming unstoppered and crushed particularly when it is empty. Further, the pouring spout remains in position, for example centered, relative to the outer box irrespective of the level of the liquid inside.

[Price 4s. 6d.]

In a modification, particularly applicable to foldable outer boxes, said support is advantageously fixed, for example by clips or staples, to the wall of said outer container.

Three boxes embodying the improvements of the invention are shown by way of example, to which the invention is in no way limited, in the accompanying drawing in which:—

Fig. 1 is an axial sectional view of a rigid lined box according to the invention, with its lid open;

Fig. 2 is a partial axial sectional view of the box shown in Fig. 1, with its lid closed;

Fig. 3 is an axial sectional view of a foldable lined box, with its lid open;

Fig. 4 is an axial sectional view of the box shown in Fig. 3, in its flattened position; and

Fig. 5 is a partial axial sectional view of a modification of a rigid container having a large-diameter neck, its lid being open.

In the embodiments shown in Figs. 1 and 2, the container comprises a rigid outer box 1 of, for example, cardboard, metal or wood,

and a lid 2 which opens in two parts. A container 3 of a plastics material in one piece acts as an inner pocket or lining. This pocket is provided with a neck extension 4 having a pouring neck or spout 5 which is for example capable of being closed by a stopper 6, and a connecting element 7 in the form of a body of revolution whose generatrix is such that it is capable of being crushed or turned inside out like a glove. Provided at the base of the connecting element 7 is an annular throat 8 in which is disposed the inner edge 9 of an aperture formed in the upper part of a rigid support 10 composed, for example, of cardboard, wood or metal and having an outer shape corresponding to the inner shape of the

container 1 and resting through the medium of its lower end 11 on the base 12 of the container 1.

Owing to this support 10, the neck extension 4, before filling the pocket 3, always remains well-centered. After filling and mounting the stopper 6, the neck extension 4 is pushed in when the two parts 2, 2<sup>1</sup> of the lid are swung to their closed position. As can be seen in Fig. 2, after the outer container has been completely closed, the neck extension 4, which is supported by the support 10, is pushed by its connecting element 7 actually inside the body of the pocket 3 without deformation of the latter, which could be filled with liquid, there being thus no danger of this liquid overflowing.

In the embodiment shown in Figs. 3 and 4, in which elements similar to those in Figs. 1 and 2 carry the same reference characters, the outer container 1 for example of cardboard, is capable of opening at its upper part 2, 2<sup>1</sup> and at its lower part 13, 13<sup>1</sup> and is capable of being folded flat. The support 10 is in this case clipped or stapled at 14 on one side to the wall of the container. The pocket 3 is provided with a neck extension 4 whose connecting element 7 has such shape as to permit it to be crushed against the upper part of the support 10. The container shown in Figs. 3 and 4 is used in the same manner as that shown in Figs. 1 and 2 and the function of the support 10 is identical. The retractable neck extension 4 does not, however, turn inside out so as to extend inside the pocket. Thus it performs the function of a shock absorber in the course of transport owing to the residual volume of air it contains.

When the pocket 3 is empty, the two halves 13, 13<sup>1</sup> of the base of the outer box 1 can be folded or swung outwardly and the assembly can be folded up and flattened as shown in Fig. 4. The pocket 3 is retained by the throat 8 being engaged by the support edge 9, and the support is fixed at 14 to one of the sides of the box 1.

In the embodiment shown in Fig. 5, the container, for example intended for granulated or viscous products, comprises a pocket 3 whose neck extension 4 has a wide neck 5 connected to the body of the pocket by a cylindrical element 7. The neck 5 is retracted merely by crushing or collapsing, which occurs when the lid 2, 2<sup>1</sup> of the box 1 is closed. The edge 9 of the aperture

formed in the upper part of the support 10 is reinforced by a collar 15, for example of hard metal. Closure of the neck is obtained at the level of the throat 8 by an expanding plug or stopper 16 having an expanding element 17, for example a circlip.

It must be understood that the scope of the invention is in no way limited to the embodiments described or shown, which have been given merely by way of examples. Thus, the generatrix of the connecting element connecting the neck to the body of the lining or pocket could be a curve of any shape, with or without an inflexion point. The pocket and the container it lines, could have any inner shape, for example parallelepipedic, and the annular throat and the aperture formed in the rigid support could be oval, square or rectangular instead of circular. The rigid support could be clipped or stapled to the wall of the outer box, even if the latter is not foldable.

#### WHAT WE CLAIM IS:—

1. A box or like container having an inner pocket or lining of plastic material of the type having a neck or pouring spout which is retractable, that is, capable of being collapsed or flattened or pushed inside the pocket, for example in the manner of a glove which is turned inside out, this retraction occurring when the outer container is closed and a relatively rigid support interposed between the pocket and the outer container, characterized in that said pocket comprises an annular recess or neck in which is disposed the edge of an aperture of corresponding shape of said rigid support.
2. A box or like container as in Claim 1, wherein said support is fixed, for example by clips or staples, to the wall of said outer container.
3. A box or like container as in Claim 2, wherein said outer box is a folding box.
4. A container substantially as described with reference to and as illustrated in the annexed drawings.
5. A pocket substantially as described with reference to annexed drawings.

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Fig. 1

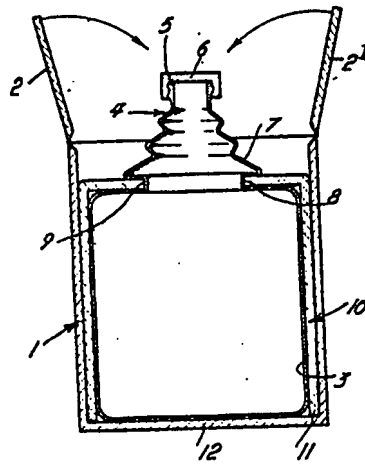


Fig. 2

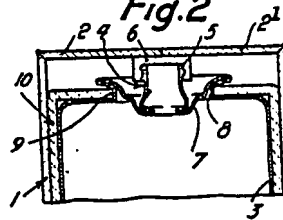


Fig. 5

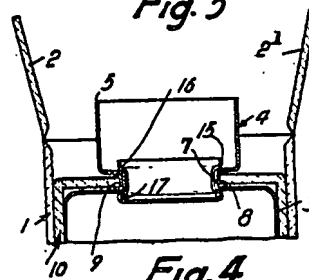


Fig. 4

Fig. 3

